

In the Claims

Claims 1-24 (Cancelled)

Claim 25 (Currently amended): A biochamber comprising a lumen, an outer wall defining said lumen, and a plurality of non-Sertoli cells contained within said lumen, wherein said outer wall comprises Sertoli cells, and wherein said plurality of non-Sertoli cells are selected from the group consisting of neuronal cells, NT2 cells, pancreatic islet cells, dopaminergic cells, and bovine chromaffin cells.

Claim 26 (Previously added): The biochamber according the claim 25, wherein junctional complexes are formed between adjacent Sertoli cells of said outer wall.

Claim 27 (Previously added): The biochamber according to claim 25, wherein said Sertoli cells are arranged as a monolayer.

Claims 28-29 (Cancelled)

Claim 30 (Previously amended): The biochamber according to claim 25, wherein said plurality of non-Sertoli cells comprises pancreatic islet cells.

Claim 31 (Previously amended): The biochamber according to claim 25, wherein said plurality of non-Sertoli cells comprises neuronal cells.

Claim 32 (Previously amended): The biochamber according to claim 31, wherein said neuronal cells are NT2 neurons.

Claims 33-34 (Cancelled)

3

Docket No. USF-T127
Serial No. 09/593,629

Claim 35 (Previously amended): The biochamber according to claim 25, wherein said Sertoli cells of said outer wall provide immunoprotection to said plurality of non-Sertoli cells within said lumen upon transplantation of said biochamber.

Claims 36-37 (Cancelled)

Claim 38 (Previously added): The biochamber according to claim 25, wherein said biochamber is spherical in shape.

Claim 39 (Currently amended): A biochamber comprising a lumen, an outer wall, and a plurality of non-Sertoli cells contained within said lumen, wherein said outer wall comprises a monolayer of Sertoli cells that define said lumen, wherein said monolayer of Sertoli cells encapsulate said plurality of non-Sertoli cells, and wherein junctional complexes are formed between adjacent Sertoli cells of said outer wall, and wherein said plurality of non-Sertoli cells are selected from the group consisting of neuronal cells, NT2 cells, pancreatic islet cells, dopaminergic cells, and bovine chromaffin cells.

Claim 40 (Currently amended): A method of making a biochamber comprising:
co-culturing Sertoli cells and non-Sertoli cells in the presence of a basement- ~~basement~~ membrane preparation for a period of time sufficient for the Sertoli cells to form an outer wall that encapsulates a plurality of the non-Sertoli cells, wherein the non-Sertoli cells are selected from the group consisting of neuronal cells, NT2 cells, pancreatic islet cells, dopaminergic cells, and bovine chromaffin cells.

Claim 41 (Previously amended): The method according to claim 40, wherein said co-culturing is carried out under microgravity conditions.

Claim 42 (Cancelled)

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4

Docket No. USF-T127
Serial No. 09/593,629

Claim 43 (Previously amended): The method according to claim 40, wherein the basement membrane preparation causes epithelization and polarization of the Sertoli cells, thereby inducing the Sertoli cells to form the outer wall that encapsulates the plurality of non-Sertoli cells.

Claim 44 (Cancelled)

Claim 45 (Previously amended): The method according to claim 40, wherein the basement membrane preparation comprises MATRIGEL.

Claims 46-47 (Cancelled)

Claim 48 (Previously added): The method according to claim 40, wherein junctional complexes are formed between adjacent Sertoli cells of said outer wall.

Claim 49 (Previously amended): The method according to claim 40, wherein the outer wall comprises a monolayer of Sertoli cells.

Claim 50 (Currently amended): A method of transplanting cells comprising the steps of: transplanting a biochamber into a host, wherein the biochamber comprises a lumen, an outer wall defining said lumen, and a plurality of non-Sertoli cells contained within said lumen, wherein said outer wall comprises Sertoli cells, and wherein the non-Sertoli cells are therapeutic cells.

Claim 51 (Cancelled)

Claim 52 (Previously amended): The method according to claim 50, wherein the outer wall comprises a monolayer of Sertoli cells.

Claim 53 (Cancelled)

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Claim 54 (Previously added): The method according to claim 50, wherein the non-Sertoli cells are secreting cells.

Claim 55 (Previously added): The method according to claim 50, wherein junctional complexes are formed between adjacent Sertoli cells of said outer wall.

Claim 56 (Previously added): The method of claim 50, wherein said method further comprises making a biochamber prior to said transplanting, wherein said making comprises co-culturing the Sertoli cells and non-Sertoli cells in the presence of a basement membrane preparation for a period of time sufficient for the basement membrane preparation to induce the Sertoli cells to form an outer wall that encapsulates the plurality of non-Sertoli cells within the lumen.

Claim 57 (Previously added): The method of claim 56, wherein the basement membrane preparation comprises MATRIGEL.

Claim 58 (Previously added): The method of claim 56, wherein the co-culturing is carried out under microgravity conditions.

Claim 59 (Cancelled)

Claim 60 (Previously added): The method of claim 59, wherein the basement membrane preparation comprises MATRIGEL.

Claim 61 (Currently amended): A method of making a biochamber comprising co-culturing Sertoli cells and non-Sertoli cells under microgravity conditions for a period of time sufficient for the Sertoli cells to form an outer wall that encapsulates a plurality of the non-Sertoli cells, wherein said co-culturing is carried out in culture medium containing a basement membrane preparation, and wherein the non-Sertoli cells are selected from the group consisting of neuronal cells, NT2 cells, pancreatic islet cells, dopaminergic cells, and bovine chromaffin cells.

SASII-RESP/USF-T127 AF Amend doc/DNB/mv

6

Docket No. USF-T127
Serial No. 09/593,629

Claim 62 (Previously added): The method of claim 61, wherein the basement membrane preparation comprises MATRIGEL.

SALIW-RESP:USF-T127 AF Amend.doc/DNB/mv